



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,521	09/20/2000	Jun Koyama	SEL 209	6933

7590 01/24/2007
Cook Alex McFarron Manzo Cummings & Mehler Ltd
Suite 2850
200 West Adams Street
Chicago, IL 60606

EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
----------	--------------

2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/666,521

Applicant(s)

KOYAMA, JUN

Examiner

Kimnhung Nguyen

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/5/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, line 6, "an insulating film over the EL element" is not supported in the specification. See MPEP 2173.05(i), Negative Limitations.

In claim 9, line 6, "an insulating film over the EL element" is not supported in the specification. See MPEP 2173.05(i), Negative Limitations.

In claim 19, line 6, "an insulating film over the EL element" is not supported in the specification. See MPEP 2173.05(i), Negative Limitations.

In claim 28, line 5, "an insulating film over the EL element" is not supported in the specification. See MPEP 2173.05(i), Negative Limitations.

The specification does mention "a base film 301 is formed with a 300 nm thickness on a glass substrate 300. Silicon nitride oxide films are laminated as the base film 302 in embodiment 1. It is good to set the nitrogen concentration at between 10 and 25wt% in the film contacting the

Art Unit: 2629

glass substrate 300", on page 12, lines 4-7. However, the specification does not disclose that "an insulating film over the EL element" as claims 1, 9, 19 and 28.

For examining the claims on the merit, Examiner will consider the claim languages without the limitation "an insulating film over the EL element".

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 9-12, 18-22, 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 5,990,629) in view of Inoguchi et al. (US 6,262,531).

Regarding claims 1, 9, 19 and 28, Yamada et al. discloses in figs. 1, 5, an electronic device comprising an EL display device (11) including a thin film transistor (12); an EL element (11) with the pixel electrode as a cathode (11a, see col. 18, lines 66-67 and col. 19, lines 1-3); and an insulating layer (14) is formed on the driver transistor 12 and the selection transistor 13(see col. 7, lines 57-66), an applying means (see drain driver 4) for applying an analog image signal to the EL element; and a correcting means for gamma correcting (2c, fig. 5) the analog image signal.

However, Yamada et al. does not disclose an insulating layer for sealing the EL element.

Art Unit: 2629

Inoguchi et al. discloses a thin film EL display panel having the whole EL element is sealed by silicon oil (or insulating layer, because silicon oil is not conducting layer, see col. 1, lines 46-49, col. 2, lines 36-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the whole EL element is seal by silicon oil as taught by Inoguchi et al. in to the electronic device of Yamada et al. for producing the claimed invention because this would provide the silicon oil fills the gap between the EL element 90 and 91, and thus prevent moisture after that and the oil adheres to the lead wire member 94 and it is difficult to clean it (see col. 2, lines 19-22).

Regarding claims 2, 10, 20, 29, Yamada et al. discloses further comprising a memory for storing data for the gamma-correcting (see table memory section 2d, and 2e, see col. 10, lines 43-46, and 66-67 and col. 11, lines 1-3).

Regarding claims 3, 12, 22 and 31, Yamada et al. discloses a color filter being formed at position corresponding to the pixel electrode (see col. 22, lines 15-23).

Regarding claims 11, 18, 21 and 30, Yamada et al. discloses the EL display device is used in an electronic device selected form the group consisting of an EL display.

5. Claims 5-7, 14-16, 24-26 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 5,990,629) and Inoguchi et al. (US 6,262,531) and in view of Yamazaki et al. (US 6,388,652).

Regarding claims 5-6,14-15, 24-25 and 33-34, Yamada et al. and Inoguchi et al. do not disclose the gamma-correcting amplifies a signal of red, or gamma-correcting attenuates a signal

Art Unit: 2629

of blue or green. Yamazaki et al. discloses that wherein the gamma-correcting amplifies a signal of red and inherent of attenuates a signal of blue or green (see figure 14, column 18, lines 23-31).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using the gamma-correcting amplifies a signal of red and inherent of attenuates a signal of blue or green as taught by Yamazaki et al. into the system of Yamada et al. and Inoguchi et al. because this would provide the analog signals have processed to complete, and these signals are transmitted to the source driving circuit of the system.

Regarding claims 7, 16, 26 and 35, Yamada et al. and Inoguchi et al. do not disclose the gamma-correcting is independently applied for each of signals of blue, green and red. Yamazaki et al. discloses the gamma-correcting is independently applied for each of signals of blue, green and red (see figure 14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of using gamma-correcting is independently applied for each of signals of blue, green and red as taught by Yamazaki et al. into the system of Yamada et al. and Inoguchi et al. because this would provide an improving the EL display having correction values for driving conditions of individual surface of the electron beam, by applying correction independently.

6. Claims 8, 17, 27 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 5,990,629) and Inoguchi et al. (US 6,262,531) as applied to claims 1,9,19 and 28, in view of Yamazaki et al. (US patent 6,388,652 cited by Applicant), and further in view of Yamazaki et al. (US patent 6,445,005).

Art Unit: 2629

Yamada et al., Inoguchi et al. and Yamazaki (6,388,652) disclose every feature of the claimed invention as discussed above, however, they do not disclose the EL element comprises a luminescent layer comprising a polymer organic material. Yamazaki et al. (6,445,005) disclose an EL layer (45) is formed and made of polymer type organic material (see column 10, lines 37-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of using the an EL layer is formed and made of polymer type organic material as taught by Yamazaki et al. (6,445,005) into the device system of Yamada et al., Inoguchi et al. and Yamazaki et al. (6,388,652) because this would provide a light of white color to be a light emitting layer (see Yamazaki et al., 6445,005, see column 10, lines 62-63), and therefore, increasing the brightness of the display.

7. Claims 4, 13, 23 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 5,990,629) and Inoguchi et al. (US 6,262,531), and as applied to claims 1, 9, 19 and 28 above, in view of Yamazaki et al. (US patent 6,388,652), and further in view of Choi et al. (US patent 6,583,577).

Yamada et al., Inoguchi et al. and Yamazaki (6,388,652) disclose every feature of the claimed invention as discussed above, however, they do not disclose the El element comprises a first pixel comprising a blue luminescent layer, a second pixel comprising a green luminescent layer, and a third pixel comprising a red luminescent layer. Choi et al. disclose in figures 2 and 4 an El element comprises a first pixel (B) comprising a blue luminescent layer, a second pixel (G)

Art Unit: 2629

comprising a green luminescent layer, and a third pixel (R) comprising a red luminescent layer (see first to third EL diodes, see figure 4, see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of using the first, second and third pixels comprising blue, green and red by EL diodes as taught by Choi et al. into the system of Yamada et al., Inoguchi et al. and Yamazaki (6,388,652) because this would be independently driven without a complicatedly-designed data driving circuit, thereby simplifying the data driving circuit as well as reducing the product cost.

Response To Arguments

8. Applicant's arguments with respect to claims 1-36 filed on 11/9/06 have been considered but they are not persuasive and discussed above.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is (571) 272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2

Kimnhung Nguyen

Patent Examiner

January 18, 2007